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| APPLICATION NO.  | FILING DATE     | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-----------------|----------------------|---------------------|------------------|
| 10/644,045   | 08/19/2003      | Lothar Thiele        | HENK-0055/H5213     | 5086             |
| 423  | 7590 03/22/2005 |                      | EXAM                | INER             |
| HENKEL CORPORATION THE TRIAD, SUITE 200 2200 RENAISSANCE BLVD. |                 |                      | SERGENT, RABON A    |                  |
|  |                 |                      | ART UNIT            | PAPER NUMBER     |
| GULPH MILI   | LS, PA 19406    |                      | 1711                |                  |

DATE MAILED: 03/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

|   |                                 | i.D  |  |  |  |  |
|---|---------------------------------|--|--|--|--|--|
|   | Application No.                 | Applicant(s)   |  |  |  |  |
|   | 10/644,045                      | THIELE ET AL.  |  |  |  |  |
| Office Action Summary   | Examiner                        | Art Unit   |  |  |  |  |
|   | Rabon Sergent                   | 1711   |  |  |  |  |
| The MAILING DATE of this communication appeared for Reply   | ppears on the cover sheet w     | ith the correspondence address -   |  |  |  |  |
| A SHORTENED STATUTORY PERIOD FOR REPI<br>THE MAILING DATE OF THIS COMMUNICATION  - Extensions of time may be available under the provisions of 37 CFR 1<br>after SIX (6) MONTHS from the mailing date of this communication.  - If the period for reply specified above is less than thirty (30) days, a re  - If NO period for reply is specified above, the maximum statutory period  - Failure to reply within the set or extended period for reply will, by statu<br>Any reply received by the Office later than three months after the mailine earned patent term adjustment. See 37 CFR 1.704(b). |                                 | reply be timely filed  ty (30) days will be considered timely.  NTHS from the mailing date of this communication.  BANDONED (35 U.S.C. § 133). |  |  |  |  |
| Status  |                                 |  |  |  |  |  |
| 1) Responsive to communication(s) filed on  |                                 |  |  |  |  |  |
|   |                                 |  |  |  |  |  |
| 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is  |                                 |  |  |  |  |  |
| closed in accordance with the practice under  | Ex parte Quayle, 1935 C.        | D. 11, 453 O.G. 213.   |  |  |  |  |
| Disposition of Claims   |                                 |  |  |  |  |  |
| 4) Claim(s) 1-15 is/are pending in the application.   |                                 |  |  |  |  |  |
| 4a) Of the above claim(s) is/are withdrawn from consideration.  |                                 |  |  |  |  |  |
| 5) Claim(s) is/are allowed.   |                                 |  |  |  |  |  |
| 6)⊠ Claim(s) <u>1-15</u> is/are rejected.   |                                 |  |  |  |  |  |
| 7) Claim(s) is/are objected to.   | )☐ Claim(s) is/are objected to. |  |  |  |  |  |
| 8) Claim(s) are subject to restriction and/or election requirement.   |                                 |  |  |  |  |  |
| Application Papers  |                                 |  |  |  |  |  |
| 9) The specification is objected to by the Examiner.  |                                 |  |  |  |  |  |
| 10) The drawing(s) filed on is/are: a) accepted or b) objected to by the Examiner.  |                                 |  |  |  |  |  |
| Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).   |                                 |  |  |  |  |  |
| Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  |                                 |  |  |  |  |  |
| 11) The oath or declaration is objected to by the E   | Examiner. Note the attache      | d Office Action or form PTO-152.   |  |  |  |  |
| Priority under 35 U.S.C. § 119  |                                 |  |  |  |  |  |
| 12) Acknowledgment is made of a claim for foreig  | n priority under 35 U.S.C.      | § 119(a)-(d) or (f).   |  |  |  |  |
| a) ☐ All b) ☐ Some * c) ⊠ None of:  |                                 |  |  |  |  |  |
| 1. Certified copies of the priority documents have been received.   |                                 |  |  |  |  |  |
| 2. Certified copies of the priority documents have been received in Application No  |                                 |  |  |  |  |  |
| 3. Copies of the certified copies of the pri  | ority documents have been       | received in this National Stage  |  |  |  |  |
| application from the International Bure   | au (PCT Rule 17.2(a)).          |  |  |  |  |  |
| * See the attached detailed Office action for a lis   | st of the certified copies not  | received.  |  |  |  |  |
|   |                                 |  |  |  |  |  |
| Attachment(s)   | ., 🗂                            | 0  |  |  |  |  |
| <ol> <li>Notice of References Cited (PTO-892)</li> <li>Notice of Draftsperson's Patent Drawing Review (PTO-948)</li> </ol>  | , <u> </u>                      | Summary (PTO-413)<br>(s)/Mail Date   |  |  |  |  |
| 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08   | 8) 5) Notice of                 | Informal Patent Application (PTO-152)  |  |  |  |  |
| Paper No(s)/Mail Date 8/23/04.  | 6) Other:                       | ·  |  |  |  |  |

U.S. Patent and Trademark Office PTOL-326 (Rev. 1-04)

Application/Control Number: 10/644,045

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1. Claims 1-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Given the disclosed hydroxyl values of 50 to 400 for the oleochemical polyol on page 6 of the specification, within claim 1, it is not clear that component a) is distinct from components b) or c). Furthermore, it unclear that the resin component is distinct from components a), b), or c). Within the urethane art, active hydrogen compounds are commonly referred to as resins.

Lastly, the NCO/OH ratio as claimed is confusing, because it has not been set forth as a true range of ratios. It is questioned if the ratio range is to represent 1.5:1 to 0.9:1.

Within claim 8, the language, "selected from among", is improper Markush language.

Within claim 10, it is questioned if the term, "propoxylated, ethoxylated", is to further modify ethylenediamine. If not, then the language must be clarified.

Within claim 14, the term, "loadbearing", is considered to be a relative term, since it cannot be determined what loads are encompassed by the language. Accordingly, it is not seen that the term conveys a meaningful limitation.

Within claim 15, the basis for the claimed weight percent has not been set forth.

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1-15 are rejected under 35 U.S.C. 102(b) as being anticipated by DE 4401572.

The reference discloses two component wood adhesives comprising a polyisocyanate and a polyol mixture comprising an oleochemical polyol that corresponds to that of applicants and 2-7 weight percent of a blend of diols and triols having hydroxyl numbers that meet those of applicants. See abstract; page 2, lines 50+; page 3, especially line 53; and page 4. The position is taken that the aforementioned blend of diols and triols at the recited weight percent meets applicants' components b) and c). Furthermore, with respect to the resin component, the position is taken that the language, "up to 60 wt.%", encompasses zero; therefore, the resin component is optional. It is noted that the subject matter of claims 2-5 merely identifies resins; it does not set forth that they are required components. Additionally, when the content of resin is zero, the subject matter of claims 2-5 does not carry patentable weight, hence their inclusion within the rejection.

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4. Claims 1-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over DE 4401572 in view of Uchigaki et al. ('077) or Hartmann et al. ('392) or Falkenstein et al. ('064) or Brauer et al. ('112) or Mori et al. ('996) or Heider ('895 or '680).

As aforementioned, the primary reference discloses two component wood adhesives comprising a polyisocyanate and a polyol mixture comprising an oleochemical polyol that corresponds to that of applicants and 2-7 weight percent of a blend of diols and triols having hydroxyl numbers that correspond to those of applicants. See abstract; page 2, lines 50+; page 3, especially line 53; and page 4. The position is taken that the aforementioned blend of diols and triols at the recited weight percent corresponds to applicants' components b) and c).

5. The primary reference is silent regarding the use of applicants' claimed resin component; however, resins corresponding to those claimed were known components for polyurethane adhesives at the time of invention. The prior art is replete with teachings pertaining to the beneficial properties obtained by incorporating such resins into polyurethane adhesives.

Uchigaki et al. teach at column 5, lines 34+ that resins (tackifiers) impart high cohesive force at low temperatures and high adhesive strength to polyurethane adhesives. Hartmann et al. teach the incorporation of resins into polyurethane adhesives at column 4, lines 18+. Falkenstein et al. teach at column 7, lines 10-15 that properties such as setting time and adhesiveness may be controlled through the addition of natural or synthetic resins to polyurethane adhesives. Brauer et al. disclose adhesives at column 3, line 51 and further disclose the addition of resins to these compositions at column 11, lines 55+. Mori et al. disclose the addition of tackifier resins to polyurethane adhesives at column 3, lines 65 and 66. Heider discloses at column 6, lines 23-42 the use of resins within polyurethane adhesives as tackifiers and further teach that creep

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resistance is improved by their addition. In light of these teachings and in view of the fact that it has been held that it is *prima facie* obvious to utilize a known component for its known function (*In re Linder*, 173 USPQ 356; *In re Dial et al.*, 140 USPQ 244), the position is taken that it would have been obvious to incorporate resins into the adhesive of DE 4401572, so as to improve the properties of the adhesive, in accordance with the teachings of the prior art.

Any inquiry concerning this communication should be directed to R. Sergent at telephone number (571) 272-1079.

R. Sergent March 18, 2005 RABON SERGENT PRIMARY EXAMINER